BEFORE THE
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
U.S. HOUSE OF REPRESENTATIVES
2165 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515

PREPARED TESTIMONY OF:

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SUPPLEMENTAL SHEET

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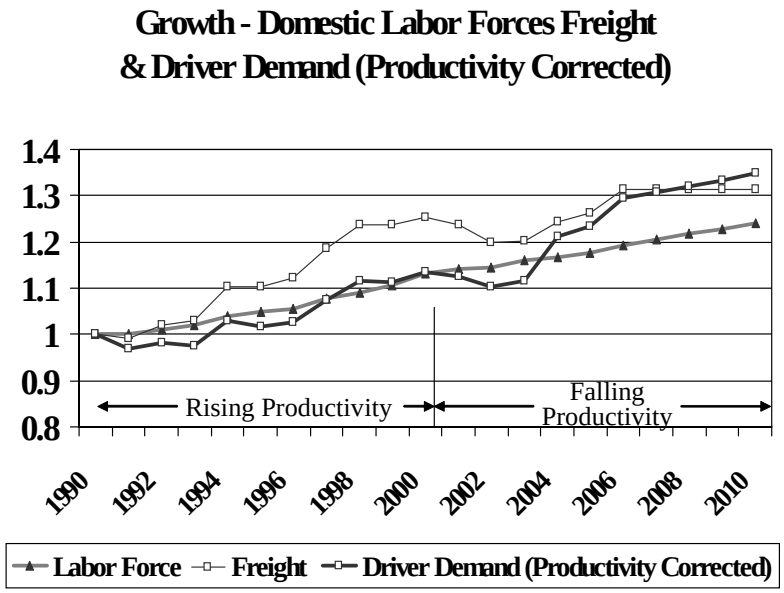
TOPICAL OUTLINE

- **Driver Crisis** – *Issue* - A shortage of long-haul truck drivers is raising costs and limiting the industry's ability to serve customers. *Recommendation* - Expand permanent employment visas quotas to cover truck driving.
- **Truck Equipment** – *Issue* - Regulatory costs on equipment are an increasingly visible element in trucking costs. The effect is magnified by the 12.38% excise tax on new equipment. *Recommendation* – Provide tax relief for federally-mandated equipment cost increases.
- **Fuel Costs** – *Issue* - Federal regulation has the unintended effect of increasing the price of truck fuel, beyond the fuel cost for other applications. This is in part because of very stringent reductions in heavy truck NOx emissions, a concern not apparent in policy towards other sources of such emissions. *Recommendation* – Develop balanced, consistent policies towards fuels and emission tradeoffs. Provide priority for highest and best uses of fuels.
- **Safety** – *Issue* – Heavy trucks are consistently improving safety performance. They cause less than 3% of injury accidents nation wide. *Recommendation* – Focus safety improvement efforts on passenger vehicles where the overwhelming majority of the problem resides. Lower the national speed limit.
- **Infrastructure** – *Issue* – The performance of this critical enabler to the American economy is deteriorating due to inadequate investment. *Recommendation* – End the diversion of highway user taxes to non-highway uses.
- **Overall** – *Issue* - Government intervention in trucking has changed from powerful cost reduction to cost increases. This situation adds to the broad increase in trucking costs since the late 1990's. R*ecommendation* – Redress the balance of government policy towards truck/highway investment and productivity.

The Driver Crisis -- Increased Costs Ahead

Until the late 1990's, growing trucking productivity made up for the gap between tonnage growth and labor force growth. It no longer does. In fact falling productivity now widens the gap. In addition, we have exhausted the portion of the work force that likes to be on the road. This combination of factors adds up to a driver shortage that increases trucking costs and prices for consumers.



- Forecasts call for the continuation of falling trucking productivity.
- Without immigration, the workforce will grow at slightly slower rates than in the 1990's. It is expected that the share of the population well-adapted to trucking will shrink.
- Almost half of our recruits now come from the unadapted portion of the population, up from 10% in 1990.

Managed immigration is one potential solution. We know there is a significant population of potential immigrants with truck driving experience. Existing immigration laws have allowed us to successfully recruit a limited number. To do more, the laws must recognize truck driving as a critical skill, something not done today with blue collar skills. In addition, the visas must be permanent so that we can recoup the significant training and orientation expense.

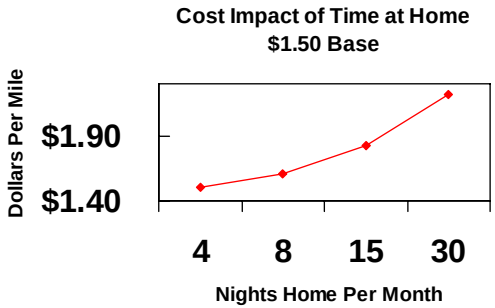
Demographics Productivity and Preference. The long-haul trucking industry faces a magnified version of the labor shortage facing the entire U.S. economy. Trucking is particularly dependent on the mid-age, male population whose slow growth rate is at the center of the problem. Historically, trucking solved the problem through aggressive productivity improvement that offset the gap between labor force and tonnage growth. Trucking also had to deal with a specific shortage of people well-adapted to the itinerant lifestyle of the over the road driver. By the end of the 1980's, the industry had exhausted the normal supply

Labor Shortages			
	U.S. Economy	Trucking 1990	Trucking 2006
Nominal	2.5%	2.4%	1.8%
Productivity Corrected	0.5%	0.1%	2.0%
Preference Corrected		0.5%	4.0%

of such travel-adapted people and had to begin recruiting from the general population. That was the point when recruiting, training, and turnover expenses began their steady rise. The problem is now of crisis proportions for two reasons. First, we are recruiting a very significant portion of drivers from the unadapted population – close to 50% in some applications. Second, the productivity equation has now turned negative, changing from a solution to a contributor to the problem. The net is a substantial driver shortage, concentrated in the long-haul portion of the market.

National implications: The shortage has affected the national economy in two ways. First is an increase in logistical cost. The shortage has increased driver pay and other expenses close to 30% since 2003. These costs have been passed directly on to shippers and then to consumers. (Logistical costs are rising as a percent of GDP for the first time in generations.) Second, there are actual spot shortages of trucking capacity that are causing dislocation to supply chains. We expect the latter problem to grow to national scale during the next expansion in freight demand.

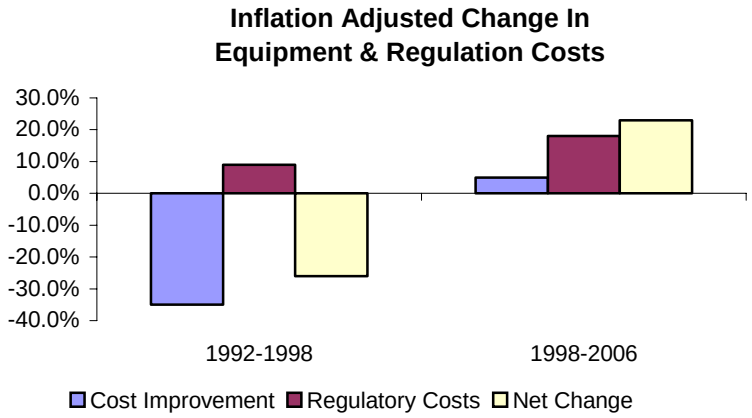
Solutions – time at home. We are increasingly convinced that the domestic solution to the driver crisis is a reengineering of the truck network to provide more time at home. Our research tells us that even dramatically increased pay will not help recruiting from the essential unadapted portion of the labor pool. The alternative, disrupting the efficient routing of a long-haul truck to get a driver home, is expensive in time costs and circuitry. Providing even modest improvements in time at home will increase trucking costs 10%. Providing "normal" time at home rates would double costs.



Managed Immigration A second solution is the expansion of immigration rules to allow the recruiting of experienced truck drivers from overseas. Current rules for employment-based immigration visas cover only very highly skilled professionals. They do not provide for relief to lower skilled, but essential occupations where certified shortages exist. One such a shortage is clearly the case in trucking. The current Senate immigration bill, S 2611, includes provisions for such immigration. The House bill H.R. 4437 does not. It is important to note that employment visas for trucking would need to be permanent. The significant investment for training and orientation (>$15,000/driver) rule out the practicality of temporary visas. Schneider National has proved the practicality of recruiting foreign drivers in small numbers under the current law. We have successfully recruited drivers from Ireland when quotas were available in the 1990's and are currently bringing in twenty-two drivers from South Africa.

Equipment Costs Rising Under the Pressure of Regulation

A 15-year period of falling equipment costs encouraged a wave of technical improvements and masked the growing burden of regulations. In the current environment, where equipment costs are rising, regulatory costs are additive to basic equipment costs. Under those circumstances logistical costs go up and technical innovation may stagnate.



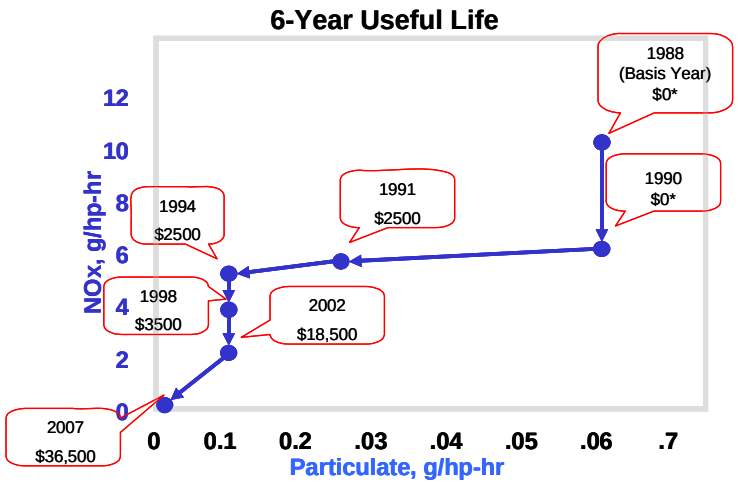
- Between 1980 and 2006, we have added 17 safety or fuel economy improvement devices to our tractors, only one of which was Federally mandated. We have an additional 10 currently under study.
- Upcoming regulations (2007-2009) will increase the cost of operating a tractor by $7,700 per year.

The burden of regulatory costs is exacerbated by the Federal Excise Tax on truck equipment. The $12,500 incremental cost of 2007 emission-certified engines is taxed another $1,560.

History Of Falling Equipment Costs: From 1980 to the 2000 the price of a tractor remained unchanged despite overall inflation of > 50%. The benefit came on top of improvements in performance and comfort. Moreover, very favorable trade-in terms made the net effect a nominal price decrease. This achievement came from improved manufacturing efficiency, falling materials prices, and supplier competition.

These improvements were sufficient to mask the effect of two important tax burdens. The first is the indirect tax burden of emission regulations. Since 1988, the five-fold reduction in diesel emissions has added $18,500 to the cost of a tractor over five years. This number is the total of capital and operating cost increases. Second is the direct burden of the 12.5% Federal

Incremental Cost of Emission Reductions vs. 1988 Baseline



Excise Tax (FET). It is applied to the purchase price of new tractors and trailers including any mandated equipment changes. The industry is, in effect taxed three times on any equipment regulation: once in the purchase price, once in the excise tax on the purchase price, and once through increased operating cost of the equipment. These taxes went largely unnoticed in an era when other costs were falling rapidly.

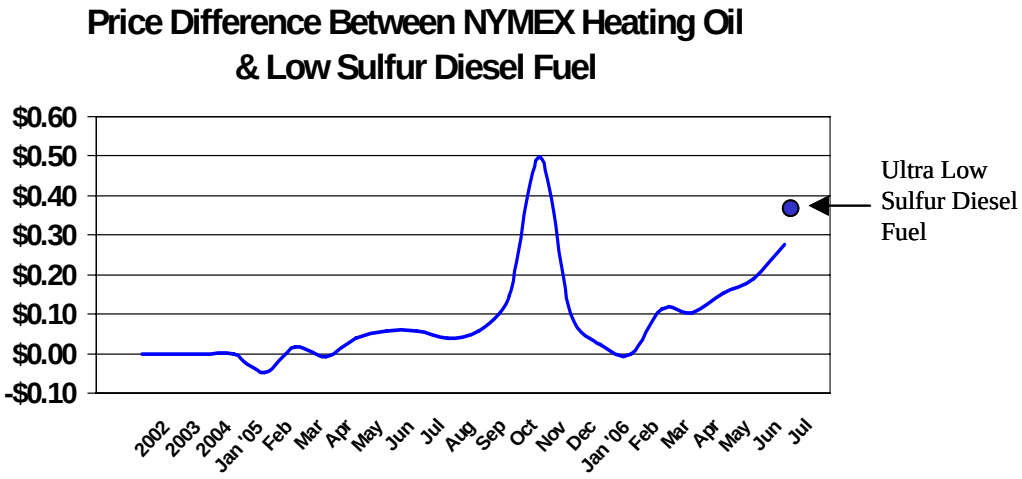
The Era Of Rising Equipment Costs: Since the late 1990's the underlying equipment costs trends have reversed. Tight capacity has raised producer margins while material costs are up sharply. Tractor productivity is down between five and ten percent depending of application The industry can no longer offset the cost of regulatory compliance with intrinsic cost reductions. Regulation costs are now felt directly by the customer - and at an increasing rate. With the 2007 emission regulations, the cost of compliance has roughly doubled. It follows that the FET tax penalty has doubled as well.

Costs Of Impending Regulations			
	Cost/Engine	FET Revenue/Engine	Annual* Industry FET (in $millions)
Emission Certified Engines (10/02-1/07)	$12,500	$1,560	$500
Anti-idling laws:			
-Cab Heaters	$700	$90	$29
-Cab Air Conditioning	$3,000	$380	$122
Operating Costs (from emissions)			
-Loss in MPG	$2,000/yr	N/A	
-Cost of Fuel	$900/yr	N/A	

The result is an environment of increased equipment cost to the customer at a time when most other costs are also rising. In addition this situation increases the risk of technological change, because the innovator must immediately pass on additional costs (multiplied by the FET) to the market.

Fuel – Higher Cost, Lower Efficiency, Less Certain Supplies.

Federal regulation has the unintended effect of increasing the price of truck fuel, arguably the highest and best use of petroleum products.



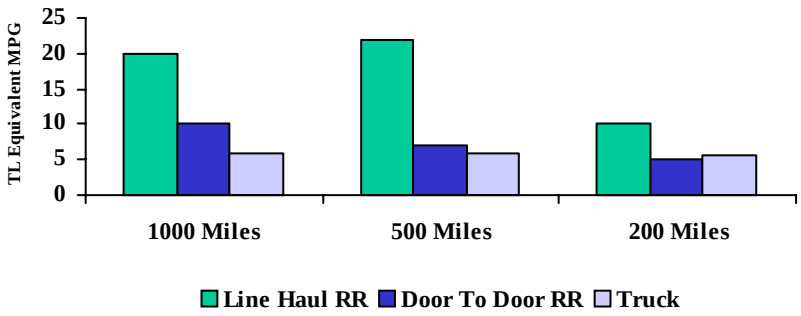
- Truck fuel is singled out for ultra low sulfur mandates.
- Multiple national and state fuel specifications increase refining cost and greatly increase the probability of spot shortages. Refining capacity is the critical link in the fuel supply chain
- Very low NOx emission regulations significantly degrade fuel economy in exchange for poorly substantiated health benefits. Mandated use of ethanol in autos increases NOx and the likelihood of shortages.

Ethanol is a good example of where Federal policy works at cross purposes. On diesel engines, federal regulations are dramatically reducing NOx emissions – at great cost. On gasoline engines, Federal subsidies (and possibly mandates) for ethanol promise to significantly increase NOx emissions.

Highest And Best Use: Transportation in general and trucking in particular qualify as a "highest and best use" of petroleum products. That is because trucking produces essential economic value and has no practical substitute for oil. Moreover, the lack of market barriers to entry insure that market forces will dictate the most efficient use of such a high cost resource – currently 30% of total trucking cost.

Modal Alternatives: Truckload trucking falls midway among the modal options with respect to fuel efficiency per ton-mile; well below barge and pipeline, well above air freight and parcel delivery. Market forces obviate the need for government regulations or subsidies, particularly given the complex nature of contemporary supply chain choices. Those supply chain calculations take into consideration substantial service difference between modes and the

Intermodal & TruckLoad Fuel Consumption



effect of consolidation expense and circuitry. In practice, there is little share shift between modes in our mature logistics landscape. Each mode has a well-defined niche. Note in the accompanying chart that intermodal rail service has a significant door-to-door fuel advantage over truck only at long hauls. Importantly, that advantage is often offset by service disadvantage and a limited route structure.

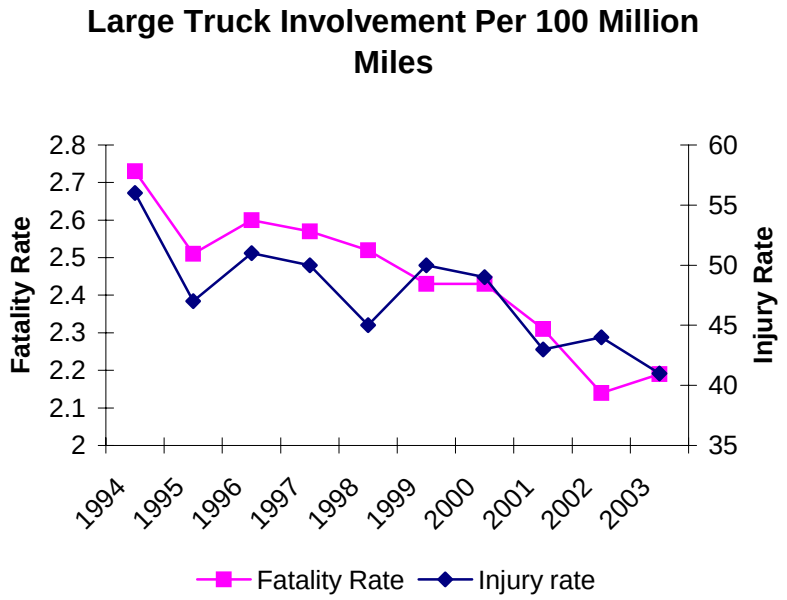
Refiner Limitations: Domestic refining capacity is the critical link in U.S. middle distillate fuel supplies. A combination of conservative investment and environment regulation have effectively halted refining growth. Since 1982, demand has grown 35%, capacity 1%. This problem is exacerbated by a proliferation of fuel specifications, often mandated by federal or state emission regulations. (There are seven federal specs and four more California specs, not including bio diesel.) Both conditions create an environment of high, unstable prices and spot shortages.

Competing Regulatory Priorities: Engine physics create a tradeoff between fuel economy and NOx control. Until recently, manufacturers were able to prevent absolute fuel economy declines as NOx emissions dropped. (The changes, however, did slow gains in fuel consumption.) Beginning with the 2002 engines changes, fuel economy has suffered absolute declines, 2% in 2002, 4-5% in 2007. We expect further reductions in 2010. This situation deserves legislative review because the very low levels of NOx emissions are not justified by well-documental health benefits.

Moreover, truck emissions are controlled at much lower levels than required from other NOx sources. Federal and state support for ethanol production and use is another example of competing priorities. Ethanol has poorly substantiated fuel benefits, at least with currently available technology. Moreover, ethanol is a strong producer of NOx emissions. The Wisconsin Department of Natural Resources Bureau of Air Management estimates that a 10% ethanol blend in state gasoline supplies would raise NOx emissions equivalent to that produced by a 350 Megawatt coal-fired power plant. It is clear that ethanol mandates are directly in conflict with the emission mandates applied to truck diesel engines.

Safety – Safe And Getting Safer While Getting Taxed For It.

Constant investment in safety is paying off in trucking. The industry is consistently getting safer and will continue to do so.



- Only 8.4% of total U.S. highway accidents involve a large truck. The large truck driver is at fault in only 30% of those accidents.
- Schneider National has added 14 different safety technologies to its vehicles since 1980 at a cost of $10,000 per vehicle. Only one of those was required by regulation. We have seven more under active study today.
- Despite the clear public benefit, all of these improvements are subject of 12.5% FET.

The root U.S. highway safety problem involves drivers of small vehicles who cause more than 97 percent of accidents. Auto fatality crashes increased 1.4% in 2005. Reducing the national speed limit would reduce fatalities at the same time it reduces fuel consumption and emissions.

Safety Is A Major Trucking Agenda: At close to 10% of total trucking costs, safety receives high priority in trucking fleets. Because safety is also closely correlated with other important business priorities (e.g., fuel, driver satisfaction) market forces can be trusted to keep the industry safe. This is shown at the aggregate level by the steady reduction in accident frequency (see above) and at the firm level by the consistent investment in safety technology. Since 1984, Schneider National has invested more than $7,500 per tractor in fourteen safety technologies only one of which was required by regulation. (We implemented that one – anti-lock brakes, two years before the regulatory deadline.) We expect to maintain that momentum through continued investment. We have seven technologies currently under evaluation including dramatic options like collision avoidance systems and lane departure warnings. Finally, we enhance safety through constant training (including simulators) and carefully enforced policies. (For instance, we do not provide cell phones due to safety concerns.)

Trucks are not the national safety problem. Heavy trucks are involved in only 8.4% of total national accidents. Of those accidents, only about 30% are caused by the truck driver. The rest are caused by the other vehicle's driver. That means that more than 97% of total accidents are caused by a non-commercial or small commercial vehicle driver. It is overwhelmingly clear that government safety policy should focus on those two segments.

Speed Limits Count: The simplest powerful thing that the Federal government can do to improve U.S. highway safety is to reduce speed limits. In 1987 when Congress authorized states to increase speed limits after the 1973 reduction to 55 MPH, the 38 states that increased their limits saw a 21% increase in fatalities. The states that kept their limits to 55 MPH saw no change. Engineers know the cause: stopping distance increase geometrically with speed. Large differences between vehicle speeds increase the frequency of accidents. Note that such a change would also reduce fuel consumption and emissions, both of which increase geometrically with speed.

Truck options: The most important factor when regulating or incenting safety in the heavy truck industry is uniformity across the industry. We are the collection of a wide variety of firms distinguished by huge variation in size. There are thousands of truckers who own only one truck; there are also six that own or control more that 10,000. Because of their size and relative sophistication, the large fleets receive a disproportional amount of regulation attention. That convenience is poor public policy because the large fleets are safer, given their scale and history of business success. It is important, therefore to apply regulation evenly across the industry. That means government must ensure that enforcement is possible among the small, hard-to-follow fleets before imposing new regulations. In the same way, legislators should avoid exemptions for vocational trucks (farming, construction).

Infrastructure – Increased Congestion, Inadequate Funding.

Highway congestion is a growing problem with substantial costs to truckers and their customers. Current funding is clearly inadequate to solve the problem and is increasingly diverted to other uses.

Congestion

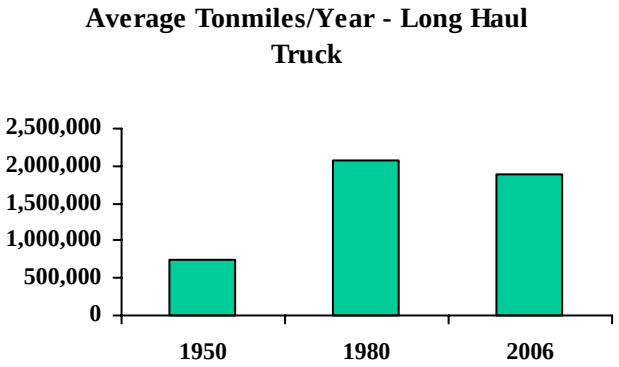
- The U.S. has effectively halted the expansion of its highway system (up only 5% in the last 20 years. Because highway travel has almost doubled over that time, congestion has increased substantially. The problem will likely get worse – current funding is not keeping pace with the cost of maintenance.
- Heavy trucks account for less than 5% of vehicle miles. They are only a modest contributor to congestion. However, the high-value nature of their travel means that they bear a disproportionate share of the congestion cost, 30% or worth almost $20 billion per year.

Funding

- Funding inadequacy is likely to get worse for two reasons: (1) the move to more fuel efficient passenger vehicles will reduce gas tax receipts, and (2) both federal and state government are diverting highway funds to other uses.
- Because heavy truck fuel economy is falling as a result of federal emission regulations (down 5-7% 2001-2007) our contribution to highway funding is increasing. Our total tax burden is increased even more given the excise tax on the capital costs of emission controls.

Funding reform requires regaining voter confidence in the fairness of the process. To do that, legislators must end the diversion of tax revenues and reform the earmarking process.

Congestion Reverses Costs Trend: Between 1950 and 1980 expansion of the U.S. highway system combined with increased size and weight limits to improve truck productivity 175%. Because margins in this competitive market did not change during that time the benefit flowed to the consumer, saving 56% on truck charges. Since that time, congestion has consumed 5% of those savings with more to come. We estimate that total highway congestion costs the nation's consumers almost $20B in higher truck charges per year. Because the truck driver cost is the largest truck cost – as driver costs go up so will the congestion burden.



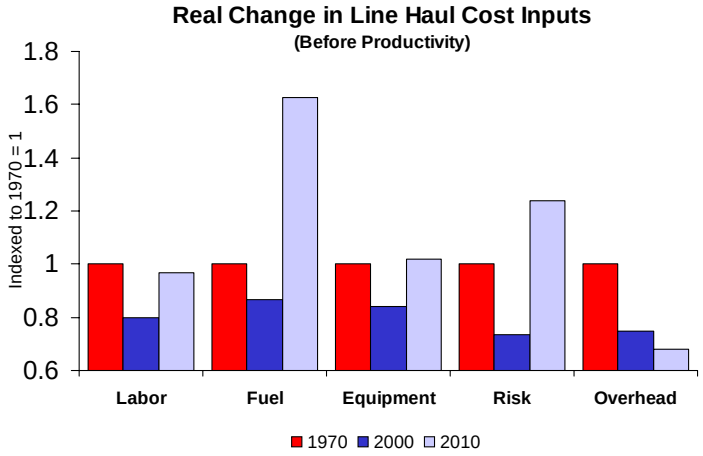
Truck Contribution: Heavy trucks account for less than 5% of national vehicle miles. Accounting for truck size and performance, they take up about 15% of highway space. They contribute less than that proportion to congestion because their miles are much less concentrated in peak periods. However, because the value of their travel is much greater than the average passenger trip the cost of congestion to trucking is higher. We estimate that heavy trucking bears 30% of the congestion cost, at least twice its contribution.

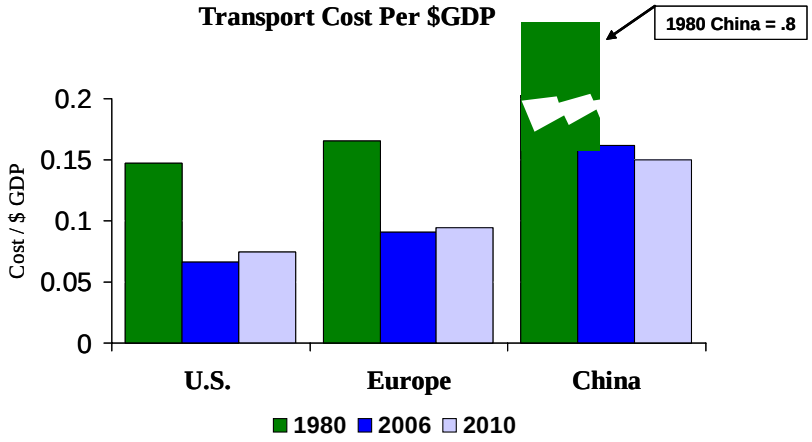
Funding adequacy: The U.S. Chamber of Commerce estimates that nationally we are almost 20% short of the funding levels needed to prevent further congestion ($42B). That short fall is created by the failure of funding to keep pace with construction inflation (the Federal gas tax is not indexed) and the diversion of highway to other uses (transit, general funds). Illinois and Wisconsin have diverted $3.3B of their highway funds to general funds uses during the last two years. This policy has two deleterious effects. First, the payers of highway use taxes grow resistant to those taxes when they are not returned to them as highway benefits. Wisconsin recently eliminated its gas tax indexing. Second, the highways are not sufficiently repaired and expanded. The clear, powerful economic benefit of our highway system should make it a priority for governmental spending. Moreover, the cost of offsetting deferred maintenance increases geometrically the longer you defer the maintenance.

Options: *Raising fuel taxes.* This option retains the classic virtue of a focused use tax. It also has the virtue of incenting fuel economy. For heavy trucks, some of the increase costs can be offset by revisiting the 2010 emission requirements, given their debatable health benefits. *Tolls.* Tolls fail the test of practicality for several reasons: the collection process increases congestion; drivers have the option of switching highways, merely displacing congestion; the charges apply all day long, not just during congested times; toll revenues are easily diverted to other uses. *Rail expansion.* This idea will not reduce congestion because railroads are poor substitutes for the regional and short haul truck moves that most frequently contribute to congestion. *Mass Transit.* Public transit reduces congestion only in the high density core of large older cities built before the automobile revolution. In the rest of the country, transit service may qualify as a social service but it does not reduce highway congestion.

Overall

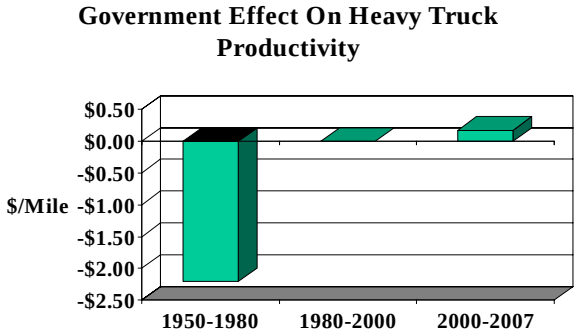
Heavy truck transport is at the core of the U.S. economy. Our unique six-million-square-miles market is based on the cheap, reliable transportation only available from heavy trucking. The post- WWII explosion in productivity has finally ended; improvements are getting harder. Productivity is actually falling. Government regulation and policy count. It used to work to reduce costs, now it increases them. We need to regulate wisely if we are to maintain our logistics advantage over our international trading rivals.





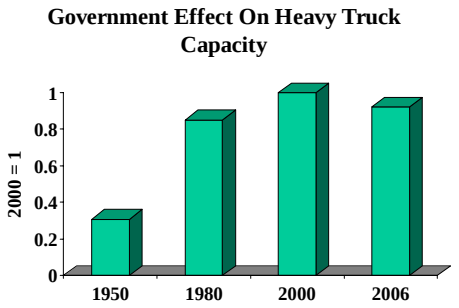
Transportation Contribution To GDP: The U.S. economy is unique in its collection of large, interdependent population and production centers separated by long *over-land* distances. The other large global land masses are either split by national boundaries (Europe, South America) or poorly developed (China, Russia). The U.S. links its far-flung markets with the globes' best transport infrastructure and most efficient transport. With over 90% of the revenue, trucking is at the core of that advantage. As a result, American manufacturers and consumers have access to the widest array of products and services at the lowest costs. (Ironically, the recent flood of Chinese imports is made possible by our very low transport costs.) U.S. producers spend the smallest fraction of GDP on logistics and enjoy the highest GDP per capital when measured by purchasing power, trailing only Luxemburg (very small and strong in financial services) and Norway (oil wealth).

Change In Trend: The U.S. is at a turning point in logistical development. After 220 years of declining costs (since 1776) costs are rising. A good deal of this change came through improvements in technology and management technique. However, in trucking, since WWII, more than half came from positive governmental intervention. During this period, the development of the high performance national highway system and the allowance of much large trucks reduced trucking costs by more than half. More recently however, such enabling policy has been replaced with tighter



regulation of hours of service and engine emissions. These policies increase cost. Because the maturity of the industry has also dramatically slowed, internal productivity improvements regulation cost increases now translate directly into costs increases for consumers. They are making the underlying costs increases in fuel and labor worse.

Capacity: These same dynamics apply to capacity. Until recently ,government had a strong positive effect on truck capacity (road improvement, vehicle size, deregulation). Now congestion and hours of service changes are reducing industry capacity by reducing productivity. They are importantly additive to the capacity problems resulting from driver shortages. The result is higher costs to shippers and increased volatility. We are close to the point where truck shortages may limit national economic expansion.



Policy Conclusions: There are two main policy conclusions. First, policy counts! In a mature transport market, increased costs driven by regulation are immediately visible to the consumer. They are no longer masked by improvements elsewhere. Second, the net direction of government investment and regulation has turned from a significant positive influence on transport costs to a negative. This change bears scrutiny given transportation's major contribution to U.S. competitiveness and prosperity.